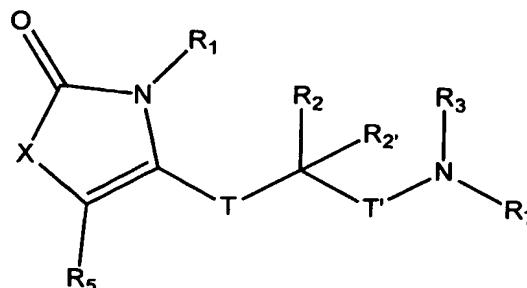


What is claimed is:

1. A compound selected from the group represented by Formula I:



Formula I

wherein:

T and T' are independently a covalent bond or optionally substituted lower alkylene;

X is O or -NR₄;

R₁ is hydrogen, optionally substituted alkyl-, optionally substituted aryl-, optionally substituted aralkyl-, optionally substituted heteroaryl-, or optionally substituted heteroaralkyl-;

R₂ and R₂' are independently hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, or optionally substituted heteroaralkyl; or R₂ and R₂' taken together form an optionally substituted 3- to 7-membered ring which optionally incorporates from one to two heteroatoms, selected from N, O, and S in the ring

R₃ is hydrogen, optionally substituted alkyl-, optionally substituted aryl-, optionally substituted aralkyl-, optionally substituted heteroaryl-, optionally substituted heteroaralkyl-, -C(O)-R₆, or -S(O)₂-R_{6a};

R₄ is hydrogen, optionally substituted alkyl-, optionally substituted aryl-, optionally substituted aralkyl-, optionally substituted heteroaryl-, or optionally substituted heteroaralkyl-; and R₅ is hydrogen, halogen, optionally substituted alkyl-, optionally substituted aryl-, optionally substituted aralkyl-, optionally substituted heteroaryl-, or optionally substituted heteroaralkyl-; or R₄ and R₅ taken together with

the carbon and nitrogen to which they are bound, respectively, form an optionally substituted 5- to 7-membered ring;

R₆ is hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, optionally substituted heteroaralkyl, R₉O- or R₁₁-NH-;

R_{6a} is optionally substituted alkyl, optionally substituted aryl, optionally substituted alkylaryl, optionally substituted heteroaryl, optionally substituted alkylheteroaryl, or R₁₁-NH-;

R₇ is hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, or optionally substituted heteroaralkyl;

or R₇ taken together with R₃, and the nitrogen to which they are bound, form an optionally substituted 5- to 12-membered nitrogen-containing heterocycle, which optionally incorporates from one to two additional heteroatoms, chosen from N, O, and S in the heterocycle ring;

or R₇ taken together with R₂ form an optionally substituted 5- to 12-membered nitrogen-containing heterocycle, which optionally incorporates from one to two additional heteroatoms, chosen from N, O, and S in the heterocycle ring;

R₉ is optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, or optionally substituted heteroaralkyl and

R₁₁ is hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, or optionally substituted heteroaralkyl;

a pharmaceutically acceptable salt of a compound of Formula I;

a pharmaceutically acceptable solvate of a compound of Formula I; or

a pharmaceutically acceptable solvate of a pharmaceutically acceptable salt of a compound of Formula I.

2. A compound of claim 1 comprising one or more of the following:

one of T and T' is a covalent bond and the other is a covalent bond or optionally substituted lower alkylene;

R₁ is optionally substituted lower alkyl, optionally substituted aryl, or optionally

substituted aralkyl;

R_2 is optionally substituted C_1 - C_4 alkyl;

$R_{2'}$ is hydrogen or optionally substituted C_1 - C_4 alkyl;

R_3 is $-C(O)R_6$;

R_4 is optionally substituted aryl- or optionally substituted aryl- C_1 - C_4 -alkyl-;

R_5 is hydrogen, halogen, hydroxyl-, lower-alkyl-, lower-alkoxy or cyano;

R_6 is optionally substituted C_1 - C_8 alkyl, optionally substituted aryl- C_1 - C_4 -alkyl-, optionally substituted heteroaryl- C_1 - C_4 -alkyl-, optionally substituted heteroaryl, optionally substituted aryl, $R_{11}O$ - or $R_{12}NH$ -;

R_{11} is optionally substituted C_1 - C_8 alkyl or optionally substituted aryl;

R_{12} is hydrogen, optionally substituted C_1 - C_8 alkyl or optionally substituted aryl;

and

R_7 is hydrogen, optionally substituted C_1 - C_{13} alkyl, optionally substituted aryl, optionally substituted aryl- C_1 - C_4 -alkyl-, optionally substituted heterocyclyl, or optionally substituted heteroaryl- C_1 - C_4 -alkyl-.

3. A compound of claim 2 comprising one or more of the following:

T and T' are each a covalent bond;

R_1 is ethyl, propyl, methoxyethyl, naphthyl, phenyl, bromophenyl, chlorophenyl, methoxyphenyl, ethoxyphenyl, tolyl, dimethylphenyl, chlorofluorophenyl, methylchlorophenyl, ethylphenyl, phenethyl, benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, dichlorobenzyl, dimethoxybenzyl, naphthylmethyl, or (ethoxycarbonyl)ethyl;

R_2 is methyl, ethyl, propyl, butyl, methylthioethyl, methylthiomethyl, aminobutyl, (CBZ)aminobutyl, cyclohexylmethyl, benzyloxymethyl, methylsulfinylethyl, methylsulfinylmethyl, or hydroxymethyl;

$R_{2'}$ is hydrogen;

R_6 is optionally substituted C_1 - C_8 alkyl, optionally substituted aryl- C_1 - C_4 -alkyl-, optionally substituted heteroaryl- C_1 - C_4 -alkyl-, optionally substituted heteroaryl, or optionally substituted aryl; and

R_7 is hydrogen, C_1 - C_4 alkyl; cyclohexyl; phenyl substituted with hydroxyl, C_1 - C_4 alkoxy or C_1 - C_4 alkyl; benzyl; or R_{16} -alkylene-, wherein R_{16} is hydroxyl, carboxy, (C_1 - C_4 alkoxy)carbonyl-, di(C_1 - C_4 alkyl)amino-, (C_1 - C_4 alkyl)amino-, amino, (C_1 - C_4

alkoxy)carbonylamino-, C₁-C₄ alkoxy-, or optionally substituted N-heterocyclyl-.

4. A compound of claim 3 comprising one or more of the following:

R₁ is ethyl, propyl, methoxyethyl, naphthyl, phenethyl, benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, dichlorobenzyl, dimethoxybenzyl, naphthylmethyl, or (ethoxycarbonyl)ethyl;

R₂ is ethyl or propyl;

R₆ is optionally substituted phenyl; and

R₇ is R₁₆-alkylene-, wherein R₁₆ is amino, C₁-C₄ alkylamino-, di(C₁-C₄ alkyl)amino-, C₁-C₄ alkoxy-, hydroxyl, or N-heterocyclyl.

5. A compound of claim 4 comprising one or more of the following:

R₁ is benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, or hydroxybenzyl;

R₂ is i-propyl; and

R₇ is R₁₆-alkylene-, wherein R₁₆ is amino.

6. A compound of claim 5 wherein R₁ is benzyl.

7. A compound of claim 1 comprising one or more of the following:

one of T and T' is a covalent bond and the other is a covalent bond or optionally substituted lower alkylene;

R₁ is optionally substituted lower alkyl, optionally substituted aryl, or optionally substituted aralkyl;

R₂ is optionally substituted C₁-C₄ alkyl;

R₂' is hydrogen or optionally substituted C₁-C₄ alkyl;

R₃ taken together with R₇, and the nitrogen to which they are bound, form an optionally substituted 5- to 12-membered nitrogen-containing heterocycle, which optionally incorporates from one to two additional heteroatoms, selected from N, O, and S in the heterocycle ring; and

R₅ is hydrogen, halogen, hydroxyl-, lower-alkyl-, lower-alkoxy or cyano.

8. A compound of claim 7 comprising one or more of the following:

T and T' are each a covalent bond;

R₁ is ethyl, propyl, methoxyethyl, naphthyl, phenyl, bromophenyl, chlorophenyl, methoxyphenyl, ethoxyphenyl, tolyl, dimethylphenyl, chlorofluorophenyl, methylchlorophenyl, ethylphenyl, phenethyl, benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, dichlorobenzyl, dimethoxybenzyl, naphthylmethyl, or (ethoxycarbonyl)ethyl;

R₂ is methyl, ethyl, propyl, butyl, methylthioethyl, methylthiomethyl, aminobutyl, (CBZ)aminobutyl, cyclohexylmethyl, benzyloxymethyl, methylsulfinylethyl, methylsulfinylmethyl, or hydroxymethyl;

R₂' is hydrogen; and

R₃ taken together with R₇ and the nitrogen to which they are bound, forms an optionally substituted imidazolyl ring.

9. A compound of claim 7 comprising one or more of the following:

T and T' are each a covalent bond;

R₁ is ethyl, propyl, methoxyethyl, naphthyl, phenyl, bromophenyl, chlorophenyl, methoxyphenyl, ethoxyphenyl, tolyl, dimethylphenyl, chlorofluorophenyl, methylchlorophenyl, ethylphenyl, phenethyl, benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, dichlorobenzyl, dimethoxybenzyl, naphthylmethyl, or (ethoxycarbonyl)ethyl;

R₂ is methyl, ethyl, propyl, butyl, methylthioethyl, methylthiomethyl, aminobutyl, (CBZ)aminobutyl, cyclohexylmethyl, benzyloxymethyl, methylsulfinylethyl, methylsulfinylmethyl, or hydroxymethyl;

R₂' is hydrogen; and

R₃ taken together with R₇ and the nitrogen to which they are bound, forms an optionally substituted imidazolyl ring.

10. A compound of claim 7 comprising one or more of the following:

T and T' are each a covalent bond;

R₁ is ethyl, propyl, methoxyethyl, naphthyl, phenyl, bromophenyl, chlorophenyl, methoxyphenyl, ethoxyphenyl, tolyl, dimethylphenyl, chlorofluorophenyl, methylchlorophenyl, ethylphenyl, phenethyl, benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, dichlorobenzyl, dimethoxybenzyl,

naphthylmethyl, or (ethoxycarbonyl)ethyl;

R₂ is methyl, ethyl, propyl, butyl, methylthioethyl, methylthiomethyl, aminobutyl, (CBZ)aminobutyl, cyclohexylmethyl, benzyloxymethyl, methylsulfinylethyl, methylsulfinylmethyl, or hydroxymethyl;

R₂' is hydrogen; and

R₃ taken together with R₇ and the nitrogen to which they are bound, forms an optionally substituted diazepinone ring.

11. A compound of claim 7 comprising one or more of the following:

T and T' are each a covalent bond;

R₁ is ethyl, propyl, methoxyethyl, naphthyl, phenyl, bromophenyl, chlorophenyl, methoxyphenyl, ethoxyphenyl, tolyl, dimethylphenyl, chlorofluorophenyl, methylchlorophenyl, ethylphenyl, phenethyl, benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, dichlorobenzyl, dimethoxybenzyl, naphthylmethyl, or (ethoxycarbonyl)ethyl;

R₂ is methyl, ethyl, propyl, butyl, methylthioethyl, methylthiomethyl, aminobutyl, (CBZ)aminobutyl, cyclohexylmethyl, benzyloxymethyl, methylsulfinylethyl, methylsulfinylmethyl, or hydroxymethyl;

R₂' is hydrogen; and

R₃ taken together with R₇ and the nitrogen to which they are bound, forms an optionally substituted piperazine- or diazepam ring.

12. A compound of any of claims 7 to 11 comprising one or more of the following:

R₁ is ethyl, propyl, methoxyethyl, naphthyl, phenethyl, benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, dichlorobenzyl, dimethoxybenzyl, naphthylmethyl, or (ethoxycarbonyl)ethyl; and

R₂ is ethyl or propyl

13. A compound of claim 12 comprising one or more of the following:

R₁ is benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, or hydroxybenzyl; and

R₂ is i-propyl.

14. A compound of claim 13 wherein R_1 is benzyl.
15. A compound of claim 1 wherein
T and T' are each a covalent bond;
X is $-NR_4-$;
 R_1 is benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, or hydroxybenzyl;
 R_2 is hydrogen;
 R_2 is optionally substituted C_1-C_4 alkyl;
 R_3 is $-C(O)R_6$;
 R_4 is hydrogen, optionally substituted alkyl-, optionally substituted aryl-, optionally substituted heteroaryl-, optionally substituted aralkyl-, or optionally substituted heteroaralkyl-;
 R_5 is hydrogen, halogen, hydroxyl-, lower-alkyl-, lower-alkoxy, or cyano;
 R_6 is optionally substituted phenyl;
 R_7 is R_{16} -alkylene-; and
 R_{16} is amino, C_1-C_4 alkylamino-, di(C_1-C_4 alkyl)amino-, C_1-C_4 alkoxy-, hydroxyl, or N-heterocyclyl.
16. A compound of claim 1 wherein
T and T' are each a covalent bond;
X is $-NR_4-$;
 R_1 is benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, or hydroxybenzyl;
 R_2 is hydrogen;
 R_2 is optionally substituted C_1-C_4 alkyl;
 R_3 is $-C(O)R_6$;
 R_4 and R_5 taken together with the carbon and nitrogen to which they are bound, respectively, form an optionally substituted 5- to 7-heterocyclic membered ring;
 R_6 is optionally substituted phenyl;
 R_7 is R_{16} -alkylene-; and
 R_{16} is amino, C_1-C_4 alkylamino-, di(C_1-C_4 alkyl)amino-, C_1-C_4 alkoxy-,

hydroxyl, or N-heterocyclyl.

17. A compound of claim 1 wherein

T and T' are each a covalent bond;

X is O;

R₁ is benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, or hydroxybenzyl;

R₂ is hydrogen;

R₂ is optionally substituted C₁-C₄ alkyl;

R₃ is -C(O)R₆;

R₅ is hydrogen, halogen, hydroxyl-, lower-alkyl-, lower-alkoxy, or cyano;

R₆ is optionally substituted phenyl;

R₇ is R₁₆-alkylene-; and

R₁₆ is amino, C₁-C₄ alkylamino-, di(C₁-C₄ alkyl)amino-, C₁-C₄ alkoxy-, hydroxyl, or N-heterocyclyl.

18. A compound of claim 1 wherein

T and T' are each a covalent bond;

X is -NR₄-;

R₁ is benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, or hydroxybenzyl;

R₂ is hydrogen;

R₂ is optionally substituted C₁-C₄ alkyl;

R₃ taken together with R₇, and the nitrogen to which they are bound, form an optionally substituted 5- to 12-membered nitrogen-containing heterocycle, which optionally incorporates one or two additional heteroatoms, chosen from N, O, and S in the heterocycle ring;

R₄ is hydrogen, optionally substituted alkyl-, optionally substituted aryl-, optionally substituted heteroaryl-, optionally substituted aralkyl-, or optionally substituted heteroaralkyl-; and

R₅ is hydrogen, halogen, hydroxyl-, lower-alkyl-, lower-alkoxy, or cyano.

19. A compound of claim 1 wherein

T and T' are each a covalent bond;

X is $-NR_4-$;

R₁ is benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, or hydroxybenzyl;

R₂ is hydrogen;

R₂ is optionally substituted C₁-C₄ alkyl;

R₃ taken together with R₇, and the nitrogen to which they are bound, form an optionally substituted 5- to 12-membered nitrogen-containing heterocycle, which optionally incorporates one or two additional heteroatoms, chosen from N, O, and S in the heterocycle ring; and

R₄ and R₅ taken together with the carbon and nitrogen to which they are bound, respectively, form an optionally substituted 5- to 7-heterocyclic membered ring.

20. A compound of claim 1 wherein

T and T' are each a covalent bond;

X is O;

R₁ is benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, or hydroxybenzyl;

R₂ is hydrogen;

R₂ is optionally substituted C₁-C₄ alkyl;

R₃ taken together with R₇, and the nitrogen to which they are bound, form an optionally substituted 5- to 12-membered nitrogen-containing heterocycle, which optionally incorporates one or two additional heteroatoms, chosen from N, O, and S in the heterocycle ring; and

R₅ is hydrogen, halogen, hydroxyl-, lower-alkyl-, lower-alkoxy, or cyano.

21. A compound of claim 1 that is

N-(3-Amino-propyl)-N-[1-(3-benzyl-2-oxo-2,3-dihydro-oxazol-4-yl)-2-methyl-propyl]-4-methyl-benzamide;

N-(3-Amino-propyl)-N-[1-(3-benzyl-5-bromo-2-oxo-2,3-dihydro-oxazol-4-yl)-2-methyl-propyl]-4-methyl-benzamide;

N-(3-Amino-propyl)-N-[1-(3-benzyl-2-oxo-1-phenyl-2,3-dihydro-1H-

imidazol-4-yl)-2-methyl-propyl]-4-methyl-benzamide;

N-(3-Amino-propyl)-N-[1-(3-benzyl-2-oxo-5-phenyl-2,3-dihydro-oxazol-4-yl)-2-methyl-propyl]-4-methyl-benzamide; or

N-(3-Amino-propyl)-N-[1-(3-benzyl-5-methyl-2-oxo-2,3-dihydro-oxazol-4-yl)-2-methyl-propyl]-4-methyl-benzamide;

or a pharmaceutically acceptable salt thereof, a pharmaceutically acceptable solvate thereof, or a pharmaceutically acceptable solvate of a pharmaceutically acceptable salt thereof.

22. A compound of any of the above claims wherein the stereogenic center to which R₂ and R₂' is attached is of the R configuration.
23. A composition comprising a pharmaceutical excipient and a compound, salt, or solvate thereof of any one of claims 1-21.
24. A composition according to claim 23, wherein said composition further comprises a chemotherapeutic agent other than a compound of Formula I or a pharmaceutical salt or solvate thereof.
25. A composition according to claim 24 wherein said chemotherapeutic agent is a taxane, a vinca alkaloid, or a topoisomerase I inhibitor.
26. A method of modulating KSP kinesin activity which comprises contacting said kinesin with an effective amount of a compound according to any one of claims 1 to 21.
27. A method of inhibiting KSP which comprises contacting said kinesin with an effective amount of a compound according to any one of claims 1 to 21.
28. A method for the treatment of a cellular proliferative disease comprising administering to a patient in need thereof a compound according to any one of claims 1-21.

29. A method for the treatment of a cellular proliferative disease comprising administering to a patient in need thereof a composition according to any one of claims 23-25.
30. A method according to claim 28 or claim 29 wherein said disease is selected from cancer, hyperplasias, restenosis, cardiac hypertrophy, immune disorders, and inflammation.
31. The use, in the manufacture of a medicament for treating cellular proliferative disease, of a compound according to any one of claims 1-21, or a pharmaceutically acceptable salt or solvate thereof
32. The use of a compound as defined in claim 31 for the manufacture of a medicament for treating a disorder associated with KSP kinesin activity.